

### **In the Claims**

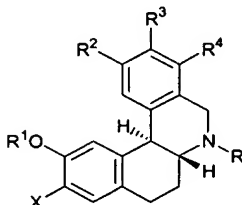
Please cancel claims 6-8, 10-12, 14, 17-28, 30-32, 34-36, and 45-62 without prejudice; and amend claims 13, 15-16, 33, 37-39, and 41 as indicated below. A complete listing of claims is provided pursuant to 37 C.F.R. § 1.121(c), as follows:

1. (ORIGINAL) A pharmaceutical composition comprising a dopamine D<sub>1</sub> receptor agonist; a dopamine D<sub>2</sub> receptor antagonist; and a pharmaceutically acceptable carrier, diluent, excipient, or combination thereof, wherein the amount of the dopamine D<sub>1</sub> receptor agonist and the amount of the dopamine D<sub>2</sub> receptor antagonist are each effective for treating a patient at risk of developing or having a neurological, psychotic, or psychiatric disorder.
2. (ORIGINAL) The pharmaceutical composition of claim 1 wherein the dopamine D<sub>1</sub> receptor agonist is a compound selected from the group consisting of hexahydrobenzophenanthridines, hexahydrothienophenanthridines, phenylbenzazepines, chromenoisoquinolines, naphthoisoquinolines, analogs and derivatives thereof, pharmaceutically acceptable salts thereof, and combinations thereof.
3. (ORIGINAL) The pharmaceutical composition of claim 1 wherein the neurological, psychotic, or psychiatric disorder is selected from the group consisting of schizophrenia, schizophreniform disorders, schizoaffective disorders, cognitive disorders, memory disorders, autism, Alzheimer's disease, dementia, bipolar disorder, depression in combination with psychotic episodes, and other disorders that include a psychosis.
4. (ORIGINAL) The pharmaceutical composition of claim 1 wherein the dopamine D<sub>1</sub> receptor agonist is a full agonist.
5. (ORIGINAL) The pharmaceutical composition of claim 1 wherein the dopamine D<sub>1</sub> receptor agonist is selective for a dopamine D<sub>1</sub> receptor subtype.
6. to 8. (CANCELLED)

9. (ORIGINAL) The pharmaceutical composition of claim 1 wherein the dopamine D<sub>2</sub> receptor antagonist does not exhibit significant binding at the dopamine D<sub>1</sub> receptor.

10. to 12. (CANCELED)

13. (CURRENTLY AMENDED) The pharmaceutical composition of claim 1 wherein the dopamine receptor agonist is a compound ~~of~~ selected from the group of formulae consisting of (a)



wherein

R is hydrogen or C<sub>1</sub>-C<sub>4</sub> alkyl;

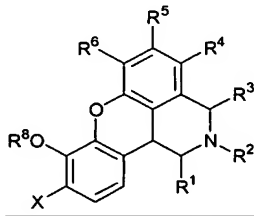
R<sup>1</sup> is hydrogen, acyl, benzoyl, pivaloyl, an optionally substituted phenyl protecting group;

X is hydrogen, fluoro, chloro, bromo, iodo; or X is a group having the formula -OR<sup>5</sup> wherein R<sup>5</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, acyl, benzoyl, pivaloyl, an optionally substituted phenyl protecting group; or the groups R<sup>1</sup> and R<sup>5</sup> are taken together to form a divalent radical having the formula -CH<sub>2</sub>- or -(CH<sub>2</sub>)<sub>2</sub>-; and

R<sup>2</sup>, R<sup>3</sup>, and R<sup>4</sup> are each independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, phenyl, fluoro, chloro, bromo, iodo, and a group -OR<sup>6</sup> wherein R<sup>6</sup> is hydrogen, acyl, benzoyl, pivaloyl, or an optionally substituted phenyl protecting group;

or a pharmaceutically acceptable salt ~~thereof; thereof.~~

(b)



wherein

R<sup>1</sup>, R<sup>2</sup>, and R<sup>3</sup> are each independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl and C<sub>2</sub>-C<sub>4</sub> alkenyl;

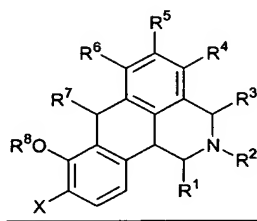
R<sup>4</sup>, R<sup>5</sup>, and R<sup>6</sup> are each independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, phenyl, halo, and a group having the formula -OR, where R is hydrogen, acyl, benzoyl, pivaloyl, or an optionally substituted phenyl protecting group;

R<sup>8</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, acyl, or an optionally substituted phenyl protecting group;

X is hydrogen or halo; or X is a group having the formula -OR<sup>9</sup>, where R<sup>9</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, acyl, or an optionally substituted phenyl protecting group; or when X is a group having the formula -OR<sup>9</sup>, R<sup>8</sup> and R<sup>9</sup> are taken together to form a divalent group having the formula -CH<sub>2</sub>-;

or a pharmaceutically acceptable salt thereof; and

(c)



wherein

R<sup>1</sup>, R<sup>2</sup>, and R<sup>3</sup> are each independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, and C<sub>2</sub>-C<sub>4</sub> alkenyl;

R<sup>4</sup>, R<sup>5</sup>, and R<sup>6</sup> are each independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, phenyl, halogen, and a group having the formula -OR, where R is hydrogen, acyl, benzoyl, pivaloyl, or an optionally substituted phenyl protecting group;

R<sup>7</sup> is selected from the group consisting of hydrogen, hydroxy, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>2</sub>-C<sub>4</sub> alkenyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, and C<sub>1</sub>-C<sub>4</sub> alkylthio;

R<sup>8</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, acyl, or an optionally substituted phenyl protecting group; and

X is hydrogen, fluoro, chloro, bromo, or iodo; or X is a group having the formula -OR<sup>9</sup>, where R<sup>9</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, acyl, or an optionally substituted phenyl protecting group; or when X is a group having the formula -OR<sup>9</sup>, R<sup>8</sup> and R<sup>9</sup> are taken together to form a divalent group having the formula -CH<sub>2</sub>-;

and pharmaceutically acceptable salts thereof.

14. (CANCELED)

15. (CURRENTLY AMENDED) The pharmaceutical composition of claim 13 wherein the dopamine receptor agonist is a compound of formula (a), and at least one of the groups  $R^2$ ,  $R^3$ , and  $R^4$  is other than hydrogen.

16. (CURRENTLY AMENDED) The pharmaceutical composition of claim 13 wherein the dopamine receptor agonist is a compound of formula (a), and R is hydrogen or methyl;  $R^1$  is hydrogen; X is hydrogen, bromo, or  $-OR^2$ , and  $R^2$  is hydrogen.

17. to 28. (CANCELED)

29. (ORIGINAL) The pharmaceutical composition of claim 13 wherein the dopamine receptor agonist compound has a half-life in the range from about 30 minutes to about 3 hours.

30. to 32. (CANCELED)

33. (CURRENTLY AMENDED) The pharmaceutical composition of claim ~~30-13~~ wherein the dopamine receptor agonist is a compound of formula (b), and at least one of the groups  $R^4$ ,  $R^5$ , and  $R^6$  is other than hydrogen.

34. to 36. (CANCELED)

37. (CURRENTLY AMENDED) The pharmaceutical composition of claim ~~22-13~~ wherein the dopamine receptor agonist is a compound of formula (c), and at least one of the groups  $R^4$ ,  $R^5$ , and  $R^6$  is other than hydrogen.

38. (CURRENTLY AMENDED) The pharmaceutical composition of ~~any one of claims 1 through 38~~ claim 1 wherein the dopamine  $D_2$  receptor antagonist is an antipsychotic agent.

39. (CURRENTLY AMENDED) The pharmaceutical composition of ~~any one of claims 1 through 38~~ claim 1 wherein the dopamine D<sub>2</sub> receptor antagonist is an atypical antipsychotic agent.

40. (ORIGINAL) The pharmaceutical composition of claim 1 further comprising one or more cholinergic agents, cholinergic agonists, acetylcholine mimetics, acetylcholine esterase inhibitors, or combinations thereof.

41. (CURRENTLY AMENDED) A method for treating a patient at risk of developing and/or having a neurological, psychotic, and/or psychiatric disorder, said method comprising the step of administering to the patient an effective amount of a composition according to ~~any one of claims~~ claim 1 through 38.

42. (ORIGINAL) A method for treating a patient at risk of developing and/or having a neurological, psychotic, and/or psychiatric disorder, said method comprising the steps of:

administering to the patient an effective amount of a full dopamine D<sub>1</sub> receptor agonist, where the agonist is a compound selected from the group consisting of hexahydrobenzophenanthridines, hexahydrothienophenanthridines, phenylbenzodiazepines, chromenoisoquinolines, naphthoisoquinolines, pharmaceutically acceptable salts thereof, and combinations thereof; and

administering to the patient an effective amount of a dopamine D<sub>2</sub> receptor antagonist;

where the agonist and the antagonist are administered contemporaneously.

43. (ORIGINAL) The method of claim 41 wherein the agonist and the antagonist are administered simultaneously.

44. (ORIGINAL) The method of claim 41 wherein the agonist and the antagonist are administered in a unitary dosage form.

45. to 62. (CANCELED)